

10th CLASS BIOLOGY GUESS PAPER NEW SCHEME 2023 –

KNOWLEDGE BASE= 50 % UNDERSTANDING BASE= 35% APPLICATION BASE=15%

CHAPTER NO.10

GASEOUS EXCHANGE.

Knowledge Base = 50%

1. Differentiate between breathing and cellular respiration.
2. How will you differentiate between a stoma and a lenticel?
3. What is meant by cellular respiration?
4. How do the gaseous exchange occur in plants?
5. What is larynx? Where is it present?
6. Differentiate between acute bronchitis and chronic bronchitis.
7. What is pneumonia? Write its symptoms.
8. What is nicotine?
9. What is voice box.
10. Define Lenticles.
11. Define alveolar ducts.

UNDERSTANDING BASE 35%

1. How do the different parts of the plant body exchange gases with the environment?
2. Write down the steps of inhalation and exhalation.
3. How does the tobacco smoke damage the respiratory system?

APPLICATION BASE = 15%

1. Investigate the breathing rate at rest and after exercise.
2. Find out how much air a person can take into his lungs.

LONG QUESTIONS.

1. What is bronchitis? Describe its types and symptoms.
2. What is emphysema? Explain it.
3. Describe the bad effect of smoking.

CHAPTER NO. 11

HOMEOSTASIS

KNOWLEDGE BASE 50%

1. What is guttation and transpiration
2. What is succulent organs?
3. What is renal tubule and renal corpuscle?
4. Define pyramids and pelvis.
5. Differentiate between Osmoregulation and thermoregulation?
6. Differentiate between xerophytes and hydrophytes.
7. What is different between hilus and pelvis?
8. Differentiate between renal cortex and renal medulla.
9. Define pressure filtration.
10. What is meant by kidney transplant?

UNDERSTANDING BASE 35%

1. How do the plants excrete extra water and salts from their bodies?
2. What steps are involved in the formation of urine in the kidneys?
3. What is the functional unit of the kidney?

APPLICATION BASE: 15%

1. Trace the movement of a molecule of urea from blood to urethra using flow chart diagram.

LONG QUESTIONS.

1. Explain the structure of nephron.
2. Describe the osmoregulatory function of kidney.
3. What is meant by dialysis? Explain its two methods.
4. Explain kidney transplant.

CHAPTER NO. 12**COORDINATION AND CONTROL.****KNOWLEDGE BASE: 50%**

1. Different between reflex action and reflex arc.
2. Define and function of coordination and give an example
3. What meant by effectors? Give an example
4. Difference between receptors and effectors.
5. Define nerve impulse.
6. Difference between sensory nerves and motor nerves.
7. What is meant by myelin sheath?
8. Write names of two disorders of eye.
9. What is meant by blind spot?
10. Compare the function of insulin and glucagon.
11. What is paralysis? Write its causes.

UNDERSTANDING BASE:35%

1. How would you describe the structure of the external, middle and inner ear of man?
2. What are short sight and long sight problems and how these can be treated?
3. Enlist the important symptoms and treatments of paralysis and epilepsy.

APPLICATION BASE:15%

1. Explain how colour blindness could be a a hurdle for aircraft pilots.
2. Conceptualize how scientific advancement has helped to solve the problem of diabetes.

LONG QUESTIONS.

1. Describe the structure of neuron.
2. Explain the peripheral nervous system,
3. Explain the thyroid gland.

CHAPTER NO. 13**SUPPORT AND MOVEMENT.****KNOWLEDGE BASE 50%**

1. Differentiate between cartilage and bone.
2. How would you differentiate between osteoporosis and arthritis?
3. Difference between locomotion and skeletal system.
4. Difference between endoskeleton and exoskeleton.
5. What is elastic cartilage?
6. Differentiate between compact bone and spongy bone.
7. Define ball-and –socket joint. Give an example.
8. What are hinge joints? Give an example
9. Write joint and write names of its types.
10. Difference between flexion and extension.
11. What is arthritis? How it can be treated?
12. What is meant by rheumatoid arthritis?

UNDERSTANDING BASE:35%

1. Describe the types of joints and give example
2. What are ligament and tendons?

APPLICATION BASE:15%

1. State the principles of arthroplasty for the replacement of joints.
2. Relate your skeleton with its functioning in daily life.

LONG QUESTIONS.

1. Define cartilage. Explain its types.
2. What is arthritis? Explain its types.

CHAPTER NO. 14**REPRODUCTION****KNOWLEDGE BASE:50%**

1. What is cyst?
2. What is meant by multiple fission?
3. What is meant by fragmentation? Give an example
4. Define parthenogenesis and give an example.
5. What are suckers? Give an example.
6. What is meant by cloning?
7. What is meant by double fertilization?
8. Define pollination and name its types.
9. What is cross-pollination?
10. Different between epigeal and hypogeal germination.
11. Define spermatogonia and oogonia.
12. What is meant by STDs? Give example
13. What does HIV stand for.

UNDERSTANDING BASE:35%

1. Explain, how the epigeal and hypogeal germination are different?
2. What conditions are necessary for the germination of seeds?

APPLICATION BASE:15%

1. What is the future of ovule and ovary after fertilization in flower?
2. What is micro-propagation?

LONG QUESTION.

1. Explain sexual reproduction in flowering plants.
2. Write down the necessary condition for seed germination.
3. Explain reproductive system of female rabbit.

CHAPTER NO. 15**INHERITANCE.****KNOWLEDGE BASE: 50%**

1. Define genotype and phenotype.
2. What do you mean by dominant and recessive alleles?
3. What are the homozygous and heterozygous genotypes?
4. Differentiate between natural and artificial selection.
5. Define genetics
6. Define genes.
7. Describe Mendel's law of segregation.
8. Define co-dominance. Give an example.
9. What is meant by natural selection?
10. Difference between breeds and cultivars.

UNDERSTANDING BASE:35%

1. Describe the structure of chromatin.
2. Write incomplete dominance with the help of example.

APPLICATION BASED:15%

1. What is the dominance relationship between blood group alleles I^A and I^A ?

LONG QUESTIONS.

1. How does the DNA of chromosome work? Explain.
2. Describe Mendel's law of segregation.
3. Describe Mendel's law of independent assortment.

CHAPTER NO. 16**MAN AND HIS ENVIRONMENT.****KNOWLEDGE BASE: 50%**

1. Difference between food chain and food web.
2. Difference between population and community.
3. Difference between carnivores and herbivores.
4. Difference between autotrophs and heterotrophs.
5. Difference between biotic and abiotic factors.
6. Difference between ectoparasites and endoparasites.
7. Define symbiosis.
8. Define mutualism. Give an example.
9. Difference between mutualism and commensalism.
10. What is meant by global warming and effect of global warming?
11. How is smog formed? Give two harmful effects of smog.

UNDERSTANDING BASE: 35%

1. What do you mean by pyramid of number and biomass?
2. Causes and effects of the air and water pollutions.
3. How human activities have contributed to the loss of balance in nature.

APPLICATION BASE: 15%

1. Identify environmental problems in your community. What are the causes and what should be done to solve these problems?

LONG QUESTIONS.

1. Explain the carbon cycle.
2. Write a note on parasitism.
3. Write a note on global warming.
4. Explain. 'The 3R' principle.

CHAPTER NO. 17**BIOTECHNOLOGY.****KNOWLEDGE BASE : 50%**

1. What are transgenic organisms?
2. What is meant by gene therapy?
3. What is meant by alcoholic fermentation?
4. Write two uses of formic acid.
5. Write two objectives of genetic engineering.
6. What is Urokinase? Write its function.
7. What is thymosin hormone? Give its function.

UNDERSTANDING BASE: 35%

1. What is a fermenter?
2. Describe the achievement of genetic engineering in medicine, Agriculture and environment.
3. What are single cell proteins?

APPLICATION BASE: 15%

1. How human began using 4000 BC
2. What is beta-endorphin.

LONG QUESTIONS.

1. Write down five applications of fermentation.
2. Describe basic steps of genetic engineering.
3. Write down five achievements of genetic engineering.

CHAPTER NO. 18**PHARMACOLOGY****KNOWLEDGE BASE: 50%**

1. Define pharmacology and distinguish it from pharmacy.
2. Difference between medicinal drug and addictive drug.
3. Difference between analgesic and antibiotic.
4. What is marijuana? To which category of addictive drugs, it belongs?
5. Difference between narcotics and hallucinogens.
6. Difference between antiseptics and antibiotics.
7. What is iodine tincture? Write its use.
8. What are sedatives? Give an example
9. Difference between broad-spectrum and narrow-spectrum antibiotics.
10. Define vaccine.

UNDERSTANDING BASED:35%

1. Write a note on resistance against antibiotics.
2. Describe the mode of action of vaccines.

APPLICATION BASED:15%

1. What is illegal drugs?
2. What is Antiseptics?
3. What is non –living objects?
4. Joseph Lister what is introduced.

LONG QUESTIONS.

1. Describe five sources of medicinal drugs.
2. Explain the type's addictive drugs.
3. Define vaccine. Explain the mode of action of vaccines.
4. Explain drug addiction and associated problems.